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TEACHERS' INTERACTIONS WITH BOYS AND WITH GIRLS.

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AN EXAMINATION WAS MADE OF THE TEACHERS' PART IN THE DEVELOPMENTAL TASKS OF CHILDREN IN ADOPTING AND MAINTAINING A SEX-ROLE THAT WILL HELP THEM REACH A SENSE OF REAL IDENTITY. ANSWERS WERE SOUGHT FOR TWO QUESTIONS--(1) DO TEACHERS REACT DIFFERENTLY TO BOYS AND GIRLS, AND (2) IF SO, WHAT EFFECT MAY THIS HAVE ON THE INTELLECTUAL AND SOCIAL DEVELOPMENT OF THE BOYS AND GIRLS CONCERNED. A QUESTIONNAIRE USED TO OBTAIN TEACHERS OPINIONS ON WHETHER THEY BEHAVE DIFFERENTLY WHEN INTERACTING WITH BOYS OR WITH GIRLS REVEALED THAT (1) ABOUT HALF OF THE SAMPLE, BOTH MEN AND WOMEN, FELT THEY DID MAKE SOME DIFFERENTIATION AND (2) A MAJORITY DID NOT THINK THEIR TEACHING AIMS DIFFERED FOR BOYS OR GIRLS. THE AUTHORS ALSO PRESENTED FINDINGS FROM A SURVEY OF LITERATURE UNDER THE HEADINGS OF (1) DIRECT MEASURES OF TEACHER BEHAVIOR WITH RESPECT TO SEX OF CHILD, (2) INDIRECT MEASURES (SUBJECTIVE REPORT, GRADES, SATISFACTION MEASURES), AND (3) TEACHER BEHAVIOR IN RELATION TO SEX OF TEACHER. IN EACH OF THESE AREAS EVIDENCE WAS FOUND SHOWING SEX DIFFERENCES IN BEHAVIOR. SEX OF CHILD WAS FOUND TO BE MORE IMPORTANT THAN SEX OF TEACHER IN THE FINDINGS. THIS WAS ESPECIALLY TRUE IN THE ASSIGNMENT OF GRADES. GIRLS RECEIVED HIGHER GRADES THAN BOYS, BUT THIS WAS NOT MORE TRUE WHEN A CHILD HAD A MALE TEACHER RATHER THAN A FEMALE. IN PRESENTING THEIR CONCLUSIONS, THE AUTHORS SUGGESTED THAT MAXIMUM INTELLECTUAL FUNCTIONING MAY BE ACHIEVED BY GIVING GREATER EMPHASIS TO DEVELOPING SENSITIVITY AND RESPONSIVENESS IN BOYS, AND TO TEACHING GIRLS TO BE TOUGHER IN THEIR THINKING AND TO HAVE MORE CONFIDENCE IN THEIR ABILITY TO SOLVE PROBLEMS. ONE COMPLICATION CITED IN ACHIEVING THIS GOAL WAS A LACK OF CERTAINTY OF THE EFFECTS ON CHILDREN OF SPECIFIED TEACHER BEHAVIORS. (AL)

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Pauline S. Sears and David H. Feldman*

Elementary schools in this country have long been coeducational. There is supposed to be equal educational opportunity for every child, whether fast or slow learning, boy or girl. Furthermore, one of the developmental tasks facing children of this age is the adoption and maintenance of a sex role which will help them eventually to reach a sense of real identity. Our problem in this paper is to look at the teacher's part in these tasks. Do teachers react to boys and to girls differently, and if so, what effect may this have on the intellectual and social development of the boys and girls concerned?

We started this work by preparing a small questionnaire asking for teachers' opinions on whether they did, or should, behave differently when interacting with boys or with girls. About half of our sample, both men and women felt that they did make some differentiation. However, a majority did <u>not</u> think that the aims of their teaching differ for boys and for girls, nor that specific techniques of approval and disapproval are more effective with one sex than with the

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other. A logical next step would be to observe these teachers in the classroom to see whether their behavior agrees with their opinions. The next section presents studies involving actual classroom observation of various samples of elementary teachers.

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Teacher behavior with respect to sex of child

What we actually know about teacher behavior in this regard is not really great. The monumental Handbook of Research on Teaching[1] lists 73 references reporting measurement of teacher classroom behavior by systematic observation. Not one of these studies, it appears, report to whom (boy or girl) the teacher was directing the kind of behavior observed.

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1. Gage, N.L. Handbook of Research on Teaching. Chicago: Rand McNally and Company, 1963. 1172 pp.

There are several studies testing the hypothesis that boys receive a larger number of disapproval contacts from their teachers than girls do. The earliest of these, by Meyer and Thompson[2] was carried out by time sample observation spread over an entire school year. Three 6th grade classrooms, all taught by women teachers, were used. In each classroom, the boys received significantly more disapproval, or blame, than the girls. Interestingly enough, boys also received more praise and/or approval than the girls although this difference was significant in only one classroom. The authors suggest that the teachers were responding by counter-aggression to the greater expression of classroom aggression by the boys. Possibly in also praising the boys more the teachers were attempting to reinforce any positive behavior the boys might show; or perhaps this reflects guilt on the teacher's part over her own scolding.

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2. Meyer, William J. and Thompson, George G. Teacher Interactions With Boys as Contrasted With Girls. In Raymond G. Kuhlens and George G. Thompson (Eds.) Psychological Studies of Human Development. New York: Appleton-Century Crofts, 1963. pp. 510-518.

A larger study by Spaulding[3], using 21 fourth and sixth grade classrooms (13 men, 8 women teachers) produced similar results on disapproval. But these teachers interacted more with boys than with girls on every one of the four major categories of teaching behavior: approval, instruction, and listening to the child, as well as on disapproval. Thus it appears that boys receive more of the teacher's active attention than girls. Is this because they demand more attention from the teacher than the more passive, dependent girls? Informal observations in elementary classrooms have suggested that boys in upper elementary grades participate more than girls in classroom discussion, making more statements and asking more questions. Perhaps in some sense their independent talk pushes the teacher to respond to them.

Further light on the disapproval question is shed by Spaulding's breakdown as to how, and for what, the disapproval was conveyed. Seven categories were devised for the aspect of behavior

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3. Spaulding, Robert L. Achievement, Creativity, and Self-Concept Correlates of Teacher-Pupil Transactions in Elementary Schools. U.S. Department of Health, Education and Welfare Cooperative Research Project No. 1352, 1963. 126 pp.

disapproved: violation of rules, personal qualities of child, thoughtlessness, task mechanics, lack of knowledge or skill, lack of attention, poor housekeeping. Lack of attention was the most frequent cause for disapproval: around 40% for both boys and girls. But another 40% of the total disapproval received by the girls was for lack of knowledge or skill ("No, Mary, not 24!"). Whereas when the boys were disapproved, only 26% of the time was it for this. As expected, boys considerably exceeded girls in the frequency of disapproval for violation of rules: boys, 17%; girls, 9%. These differences were significant.

Another difference appeared in the tone of voice used for disapproval. Teachers criticizing a boy were more likely to use a harsh or angry tone; criticism of girls was more likely to be conveyed in a normal voice. Jackson's recent work[4] (personal communication) divides teacher interaction with children into three categories:

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4. Jackson, Philip W. Personal Communication, 1966.

instructional, managerial, and control or prohibitory. Sixth grade boys, according to these results, get into at least eight times more trouble than girls on the last two categories. Probably they have a more difficult time than girls in adjusting to the institutional aspects of the classroom, but alternatively it is possible that much of the "trouble" teaches at least some of the boys that they can create some interesting effects in the classroom by independence of the teacher.

If these results are typical for elementary classrooms generally, what should we expect the social learnings of boys and girls to be as they go through many hours of interaction with teachers during their elementary years? One consequence might be a cumulative increase in independent, autonomous behavior by boys as they are disapproved, praised, listened to, and taught more actively by the teacher. Another might be a lowering of self-esteem generally for girls as they receive less attention and are criticized more for their lack of knowledge and skill. In fact, the Sears[5] study found bright girls of 5th

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5. Sears, Pauline Snedden. The Effect of Classroom Conditions on the Strength of Achievement Motive and Work Output on Elementary School Children. U.S. Department of Health, Education and Welfare Cooperative Research Project No. OE-873, 1963. 311pp.

and 6th grade to be significantly lower than boys of the same intelligence in their own self-concepts of mental ability. Of course, there are a number of rival explanations possible for this finding.

A fourth study of teacher interaction with boys and girls was done by Lippitt and Gold[6]. Generally teachers made more supportive remarks to girls and more critical remarks to boys. When the children were divided as to whether they were judged high or low on social power (the ability to get other children to follow) however, striking sex differences emerged in the low social power groups: teachers were much more supportive (and less critical) of low power girls than of low power boys.

Indirect measures of teacher behavior with respect to sex of child

Direct observation of teacher behavior is obviously the clearest indication of what is actually going on in the way of teacher-pupil interaction. However, we can make some

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6. Lippitt, R. and Gold, M. Classroom Social Structure as a Mental Health Problem. Journal of Social Issues 15: 40-50; 1st quarter 1959.

inferences about behavior from indirect measures: teachers' reports of students' behavior, their ideas on the kind of child who gives them the most satisfaction, grading practices, and perceptions by the students themselves of teacher behavior.

Torrance[7] asked a large number of teachers to describe incidents in which they believed they had rewarded creative behavior in the classroom. Rewards were thought to consist of such behavior as: being respectful of the unusual questions and ideas of children, providing for periods of non-evaluated practice, helping children to see the consequences of their ideas. Of 224 incidents reported, 172 mentioned sex of the child; 74% described such rewards as going to boys, 27% to girls. Torrance concludes that this ratio is only fair, since other evidence suggests that girls receive more rewards than boys for conforming school behavior. One wonders if girls receive the implicit message that creative thinking is for boys, conformity for girls.

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7. Torrance, E.P. Guiding Creative Talent, Englewood Cliffs, New Jersey: Prentice-Hall, 1962. 353 pp.

Torrance also reports two separate but identical studies in which boys and girls were observed as they experimented with science toys and gave ideas as to how they might be used. The first study showed boys to have many more good ideas than girls. This finding startled Torrance, who discussed with the teachers and parents involved the possibility of misplaced emphasis on sex roles during the early years, with consequent interference in the development of potentialities.

The following year the project was repeated with a new group of students. This time the girls came up rather strikingly, demonstrating and explaining as many ideas as the boys according to observer recording. However, the child subjects were also asked who in the group contributed the best ideas, and on this evaluation, both years, the contributions of boys were seen by the children to be much better than those of girls. Of course, it is possible that this occurred because the subject matter used was science, which may be thought to be a "masculine" field. It would be interesting to see if the same result would occur if composing poems were the task.

Grades and Achievement. Although the evidence is by no means conclusive, there seems to be a trend toward differences in grading and evaluation in favor of girls, even though there is a contrasting trend indicating that boys achieve at least as well as girls. Most of the research in the area of grading practices has been focused on the secondary school, so we are not free to assert that the same trends would be found at the elementary level. However, many of the same classroom conditions exist at both levels, and what small data there are point in the same directions as those of the secondary school studies.

There are six possible combinations of teachers and students which could be studied for sex differences in grading and achievement. These possibilities are: single sex classes with male or female teachers, or mixed classes with male or female teachers.

Of these six possibilities, only mixed classes are commonly found in the United States. However, a comparative study of twelve countries

(Husen, Thorsten, to be published in December, 1966[8]) shows differences in interest and achievement in mathematics between boys and girls taught in single-sex, as opposed to coeducational schools. This study finds that boys do better than girls in math in both kinds of schools, but <u>especially</u> in countries with a large proportion of single-sex schools, (Belguim and France).

At least two things must be kept in mind with regard to the above study: it is a study of <u>achievement</u> on a standardized test, not grades; and, it is of <u>mathematics</u> achievement among junior high school and high school children. We would first have to compare achievement with grades, and then run the entire study for elementary school children in order to speak with authority about sex differences at this level. This study does, however, include all 6 possible combinations of teachers and pupils; other studies are less complete.

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8. Husén, Thorsten, <u>et al</u>. <u>A Comparative Study of Outcomes of Mathematics Instruction in Twelve Countries</u>. New York: Wiley, 1966.

Two such less complete studies (Carter, 1952[9] and Hanson, 1959[10]) which are cited by Waetjen and Grambs (1963)[11] corroborate Husén's findings, and to an extent, expand them. Carter tested achievement versus grades in beginning algebra, holding IQ constant. Although the differences in achievement slightly favor boys, their grades were significantly lower. As in Husén's study, the sex of the teacher was not as important as the sex of the child. All of the classes in this sample were mixed classes with male or female teachers. It would be interesting to see if the discrepancy between grades and achievement would hold true for Husén's cross-cultural data as well.

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9. Carter, R.S. How Invalid are Marks Assigned by Teachers? Journal of Educational Psychology 43: 218-228; April 1952.

10. Hanson, E.H. Do Boys Get a Square Deal in School? Education 69: 597-598; May 1959.

11. Waetjen, Walter B. and Grambs, Jean D. Sex Differences: A Case of Educational Evasion? Teachers College Record 65: 261-271; Dec. 1963.

Hanson's study included both primary and secondary levels of students, but it was done 20 years ago. He found that a much larger percentage of the boys in his sample (N=3000) received A or B grades on an achievement test than received A or B grades from their teachers (48% versus 29%).

Coleman's [12] (1961, pp. 252-253) data for adolescents agree with the above findings. Coleman also shows that girls' grades vary less than boys', presumably because social pressures affect the sexes differently.

Thus, from the limited evidence we have, it seems that girls are given higher grades than boys, despite the fact that boys achieve at least as well as girls, and, in some cases, better.

What Kind of Child Gives a Teacher most Satisfaction?

It seems likely that the children the teacher likes best are those whose talents and behavior act to facilitate the teacher's own satisfactions in his teaching. With this in mind, Sears[13] asked

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12. Coleman, James. The Adolescent Society. New York: The Free Press, 1961. 329 pp.

13. Sears, Pauline S. op. cit.

a group of elementary teachers to rate each child in his class as to how much the teacher enjoyed having him in the group. Since there were available a number of personality and ability measures on the children, one can get a composite picture of what kind of a child it is that the teacher likes to teach. Some interesting differences emerged as to the kind of boy and the kind of girl most enjoyed by the teacher. For data analysis, the children were divided into ability groups as well as by sex, so results appear for the bright and less bright (average ability) boys and the same for the girls.

Bright boys are liked by the teacher if they are friendly and self-sufficient. Quite different correlates appear in the boys of average ability whom the teacher likes. Here the teacher welcomes affiliative, dependent motivation, good feelings of confidence, and solid work habits. If the boy has only average ability, these characteristics may permit the maximum influence by the teacher. Independance is not so much desired for these boys. And for girls--teachers' values appear met with good student, friendly behavior. Work habits should be good in the girl of average ability, but are not so important for the bright girl. Emphasis is on friendly, agreeable qualities for both groups of girls.

Perceptions of students. Making systematic observations of teacher-child interaction requires hours of time in the classroom by outside observers. Several studies have avoided this by using the children, who are present in the classroom anyhow, as the "observers".

For example, in Meyer and Thompson's[14] study, children were asked to nominate 4 fellow class members for a number of situations in which children receive approval or disapproval from their teacher for some behavior. The results were analyzed separately for responses given by boys and by girls. Highly significant differences appeared. Both boys and girls believe that boys receive more disapproval than girls do. There were no sex differences in their beliefs about the teacher's distribution of praise.

McNeil[15] obtained first grade children's ratings on teacher behavior to boys and girls in reading groups. The children's perceptions were that boys had fewer opportunities than girls to respond, and received more negative comments on their performances.

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14. Meyer and Thompson, op. cit.

15. McNeil, John D. Programmed Instruction Versus Usual Classroom Procedures in Teaching Boys to Read. American Education Research Journal 1: 113-120; March 1964.

Davidson and Lang[16] had boys and girls respond to an adjective check list containing favorable (e.g., "generous") and unfavorable (e.g., "a sloppy worker") traits. Once the children did this in answer to the instruction "My teacher thinks I am ..." and once in terms of "I think I am ..." Girls believed the teacher thought of them more favorably than boys did.

However, for all the children there was a strong positive relation between how favorably they believed the teacher saw them and how favorably they viewed themselves. This may indicate a response set toward optimism or pessimism as the children filled out both forms, or it may show that at elementary level, children's own self-concepts are considerably influenced by their ideas of how that "significant other", the teacher, feels about them. According to Coleman[17], the teacher is not a very significant influence, apart from the instructional role, at high school level. But it seems likely that for younger children, perhaps particularly young girls, the influence is more profound.

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16. Davidson, H.H. and Lang, G. Children's Perceptions of Their Teachers' Feelings Toward Them Related to Self-Perception, School Achievement and Behavior. Journal of Experimental Education 29: 107-118; December 1960.

17. Coleman, James, op. cit.

Teacher behavior in relation to sex of teacher

There have been periodic complaints that the elementary school is a feminized organization in which young boys lack masculine models for good academic achievement. Thus Kagan[18], in an ingenious experiment, found second grade children to view common objects in the classroom (blackboard, book, page of arithmatic, school desk) as more clearly associated with femininity than masculinity.

But Clapp[19] found no differences in Fall-Spring achievement gains of fifth grade boys studying with men or with women teachers. This was a large study: over 600 boys with 28 women and 17 men teachers. Husén, working with the international sample of 13 year olds previously mentioned, found mathematics performance superior in students taught by men, but this difference disappeared when related variables were taken into account.

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18. Kagan, Jerome. The Child's Sex Role Classification of School Objects. Child Development 35: 1051-1056; December 1964.

19. Clapp, Rufus C. The Relationship of Teacher Sex to Fifth Grade Boys Achievement Gains and Attitudes Toward School. Unpublished Ed.D. dissertation, Stanford University, 1966.

Ryans'[20] study of teacher characteristics involved a national sample of over 1400 elementary teachers, of whom 86% were women. Differences between the sexes in personal-social characteristics were as follows: men were less responsible and businesslike in classroom behavior, more favorable toward democratic classroom practices, more inclined toward permissive, child-centered educational viewpoints, and more emotionally stable than women.

One suspects that the last word on this subject has not been said. It is likely that selection of men teachers at the elementary level proceeds according to somewhat different rules than selection of women, resulting in samples which are not really comparable on dimensions other than that of sex. Yet to be carried out is the crucial experiment of teaching primary children by equal numbers of enthusiastic and talented men, as well as women.

Achieving Maximum Intellectual Functioning. Other articles in this issue have presented evidence on sex differences in children, some of

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20. Ryans, D.G. Characteristics of Teachers. Washington, D.C.: American Council on Education, 1960. 398 pp.

which may be innate. The authors of this article suggest that social learning of sex roles is also important. It is likely that parents, mainly unconsciously, start the process of teaching "sex roles", and that teachers, also without being fully aware of what they are doing, continue the process. Artistic production is not expected of boys; excellent problem solving not expected of girls. But society might benefit by having all children develop both these skills to the fullest. A chapter by Maccoby[21] provides thorough documentation of temperamental differences (not known to be innate or a product of social learning) between boys and girls which are associated with intellectual (rather than social or emotional) performance. Here we clearly get into the teacher's chief function, which is development of children's ability to think reasonably, independently, and creatively.

Maccoby proposes that optimal intellectual performance comes about in children when boys are less bold and impulsive than the "real" boy, and

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21. Maccoby, Eleanor. The Development of Sex Differences. Stanford, Calif: Stanford University Press, 1966. about 230 pp.

girls less timid and inhibited than the "real" girl. This hypothesis suggests reduction and modification of maximum differential treatment of the sexes. If maximizing intellectual functioning is what we are interested in, we may have to revise our ideas as to what constitutes a "proper" sex-role and what experiences best contribute to its function.

A complication is that we are not sure of the effects on children of specific teacher behaviors. Spaulding, as was mentioned previously, found that teachers criticizing boys were more likely to use a harsh or angry tone, while criticism of girls was more often conveyed in a normal tone. We do not know the effects of these behaviors. Quite possibly the harsh tones, intended to cause boys to conform, foster in fact a defiant, independent attitude, reinforcing the very behavior the teacher wished to subdue. Associated with this may be the boldness and impulsiveness which Maccoby has found to be detrimental to good thinking in boys.

Our goal, then, will be to specify the kinds of teacher behaviors that will focus boys' and girls' interest on intellectual tasks. The

behaviors may or may not be quite different for each sex. McNeil[22] has found, for example, that 1st grade boys made more progress in learning reading under programmed instruction; girls in the usual reading groups under teacher direction.

In similar vein, Kagan[23] has the following to say: "There are strong semantic associations between the dimensions of 'masculinity' and 'femininity' and specific areas of knowledge for most adult members of western culture. This is an unfortunate marriage for one would hope that knowledge would retain some neutrality amidst the warring factions of the mind. It may be possible, however, to alter this associational link between domain of knowledge and the sex roles through modifications in the procedures and atmosphere in the elementary schools."

Teachers as mediators of the culture. In some degree, certainly, elementary teachers must support the values current in the culture in which they teach. Probably in most instances the teachers themselves wish to do this because

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22. McNeil, John D. op. cit.

23. Kagan, Jerome. Personality and the Learning Process. Daedalus 94: 558; Summer, 1965.

their own values are similar to those of parents and the culture in general. Such agreement leads to harmony. Now, in what circumstances does the elementary teacher have a unique role, in that he may or should consciously deviate, for a planned useful purpose, from the mores he sees around him?

A current example is the excitement about the so-called "culturally deprived" child. His teacher is regarded as needing to provide compensatory stimulation to the kinds of stimulation the child receives in his own home environment. This is for the ultimate good of the child and of society. The teacher here is taking an active, interventionist, reconstructive role rather than reflecting mores of the child's surrounding culture. In a more general sense what changes would we suggest in the desired outcome of the educational process?

We begin here by suggesting that society needs men who carry some of the "feminine" characteristics of sensitivity to other people and responsiveness to emotion, as well as tougher

"masculine" characteristics. Society also needs women who are somewhat tougher in their thinking processes than they now are, more confident in their own ability to solve problems, less conforming to social pressures. As teachers can contribute by their own attitudes and behaviors to the development of these abilities and attitudes, so will society profit.

Or, should we say, "Vive la différence?"

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